

Figure S1. Alignment of the *lntA* nucleotide sequence promoter region. The RNA polymerase-binding sites were determined to be at positions -10 and -35.

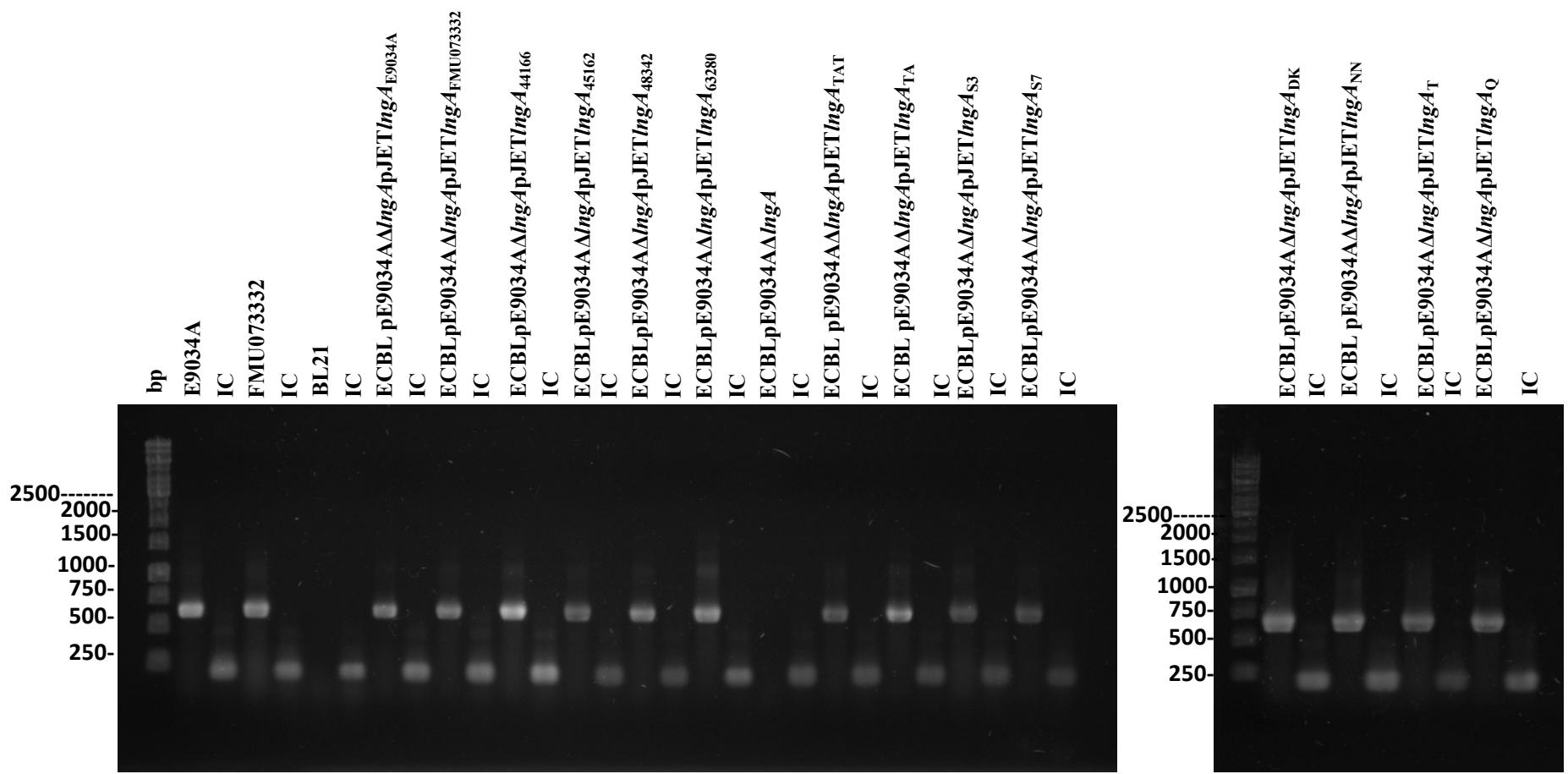


Figure S2. RT-PCR assays for *lngA* gene detection. Clinical ETEC strains (E9034A and FMU73332), ECBL (*E. coli* BL21) and recombinant ECBL strains with *lngA* variants and site-specific mutations. IC: internal control, the ARN 16S gene.

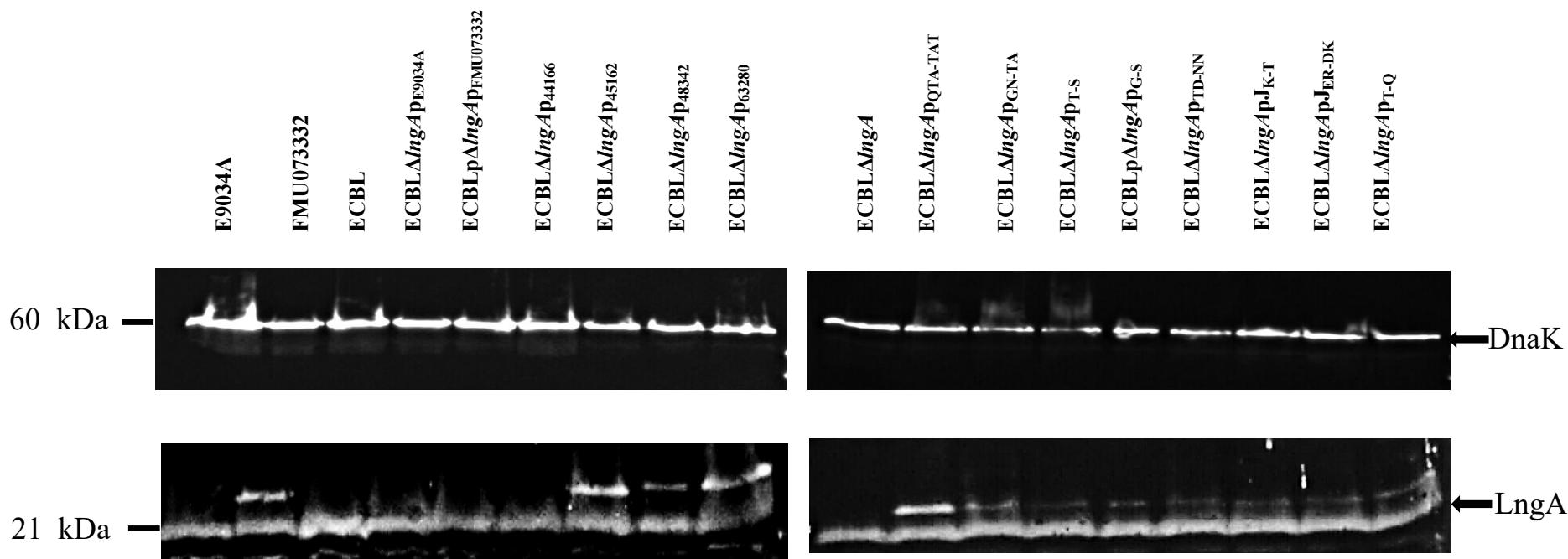


Figure S3. Immunodetection by Western blotting of clinical ETEC strains (E9034A and FMU073332), ECBL (*E. coli* BL21), recombinant ECBL strains with *LngA* variants and sitespecific mutation in *LngA* strains.

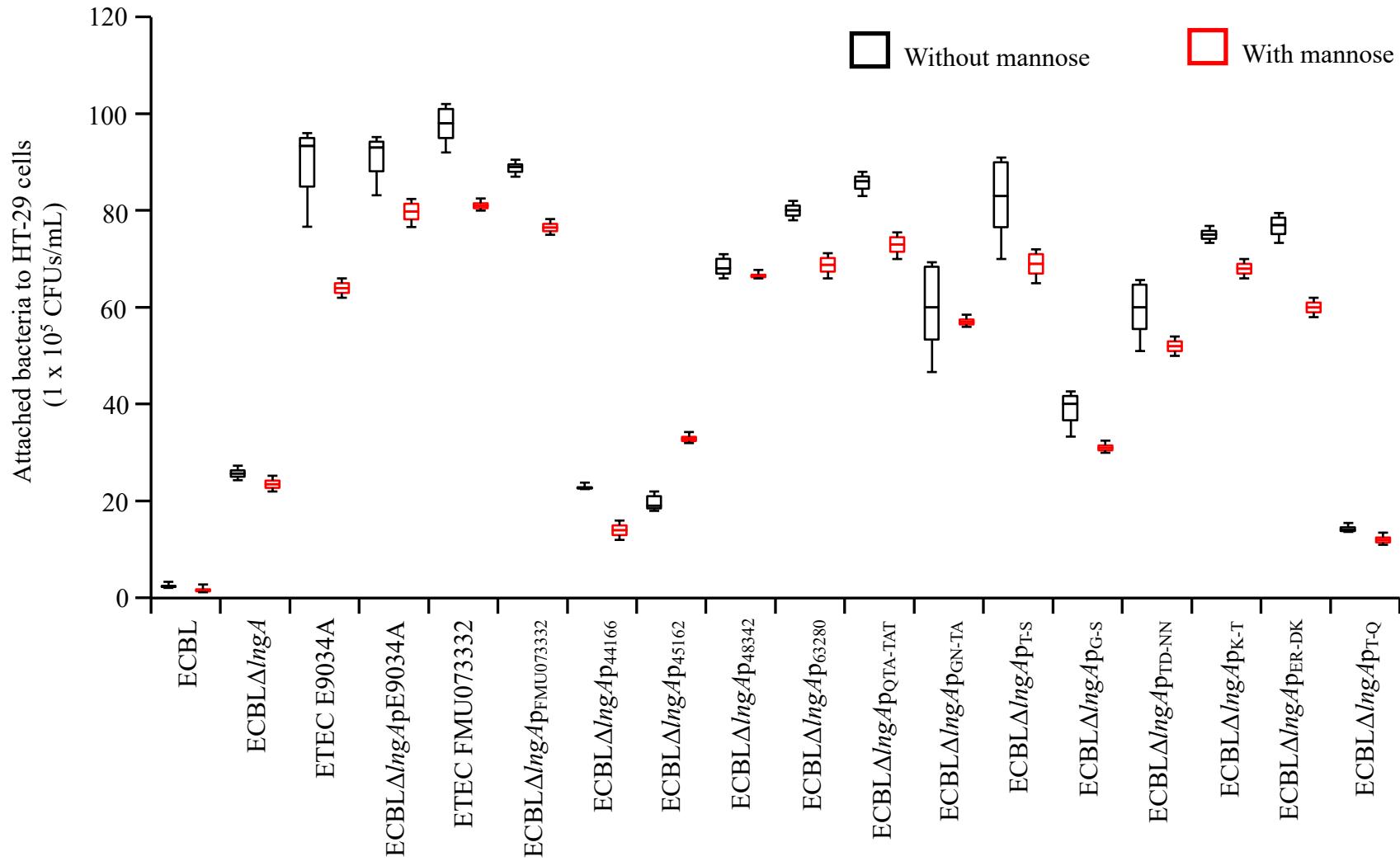


Figure S4. Quantitative analysis of bacterial adherence to HT-29 cells. ETEC (E9034A and FMU07332), ECBL (*E. coli* BL21), recombinant ECBL strains with *lngA* variants and site-specific mutations. Adherence assays were performed with and without mannose with 6 h of incubation at 37°C. In addition, 1% mannose was added to 1 mL (final volume) of DMEM per well before infection with each strain.

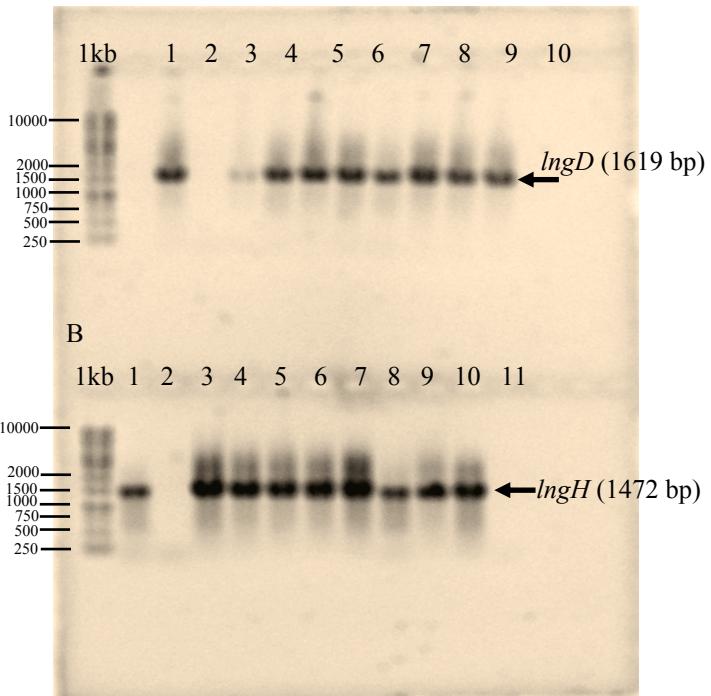
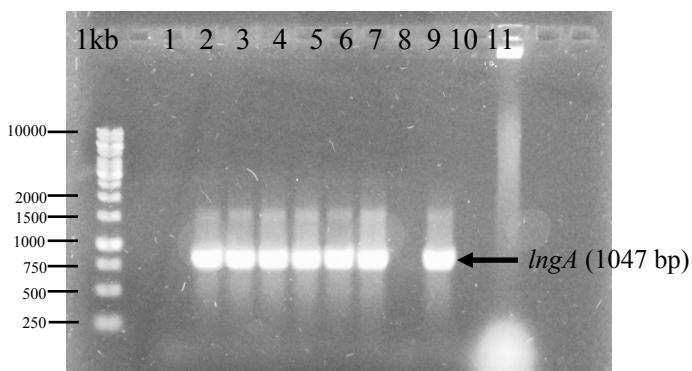
A**C****B**

Figure S5. PCR assays for the *lngD*, *lngH* and *lngA*. (A) Agarose gel stained with ethidium bromide revealing size differences in the PCR amplification products of the *lng D* gene (1619 bp). Line 1: E9034A. Lines 2 to 9: $\text{ECBL}\Delta\text{lngA}$ bacterial colonies to confirm *lng* operon insertion. Line 10: Negative control. (B) Agarose gel stained with ethidium bromide revealing size differences in the PCR amplification products of the *lng H* gene (1472 bp). Line 1: E9034A. Lines 2 to 10: $\text{ECBL}\Delta\text{lngA}$ bacteria colonies to confirm *lng* operon insertion. Line 11: Negative control. (C) Agarose gel stained with ethidium bromide revealing size differences in the PCR amplification product *lngA* gene (1047 bp). Line 1: $\text{ECBL}\Delta\text{lngA}$. Line 2: E9034A. Lines 3 to 10: $\text{ECBL}\Delta\text{lngA}$ bacteria colonies to confirm *lng* operon insertion. Line 11: Negative control.